

# LTspice Model

## LDO

## TOREX

## XC6219F102PR-G

### Model Information

**Model** A macro model  
**Call Name** MDC\_XC6219F102PR-G\_LT  
**Pin Assign** 1:NC 2:VSS 3:CE 4:VIN 5:VOOUT  
**File List** Model Library MDC\_XC6219F102PR-G\_LT01.lib  
Model Report MDC\_XC6219F102PR-G\_LT\_LT.pdf(this file)

### Verified Simulator Version

### Note

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version JTR0307-011
- Product name XC6219F102PR-G
- Company name TOREX

[Characteristics listed]

- Characteristics  $V_{IN}-V_{OUT}, V_{dif}, I_{OUT}-V_{OUT}$   
Input Transient Response  
Load Transient Response

### Simulation Condition

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition	Unit
Temperature	25	deg C

**Model Functions Table**

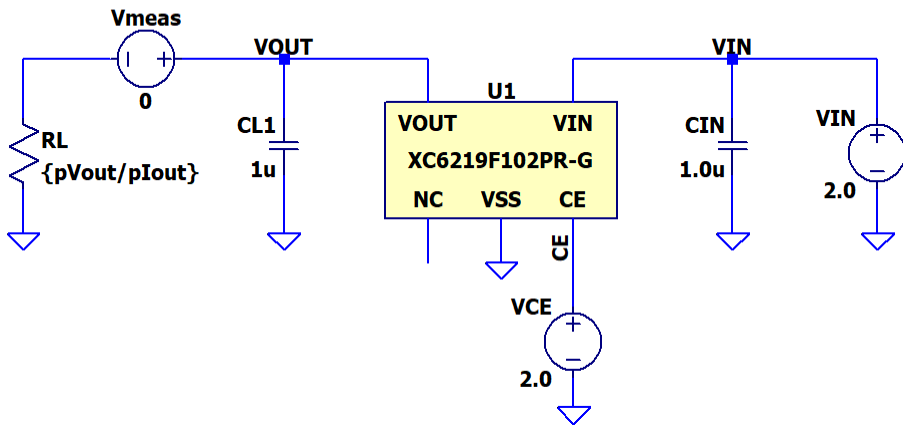
Functions	Implemented
$V_{IN}-V_{OUT}$	○
Vdif	○
$I_{OUT}-V_{OUT}$	○
Input Transient Response	○
Load Transient Response	○

**V<sub>IN</sub>-V<sub>OUT</sub> Testbench**  
**Referred to Data Sheet**

```
.option TNOM=25
.temp 25

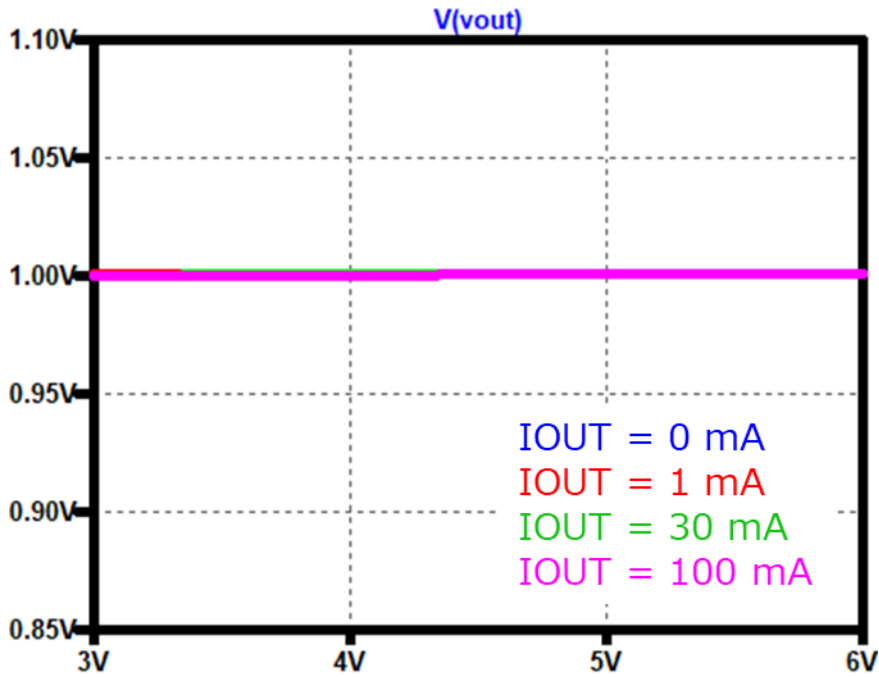
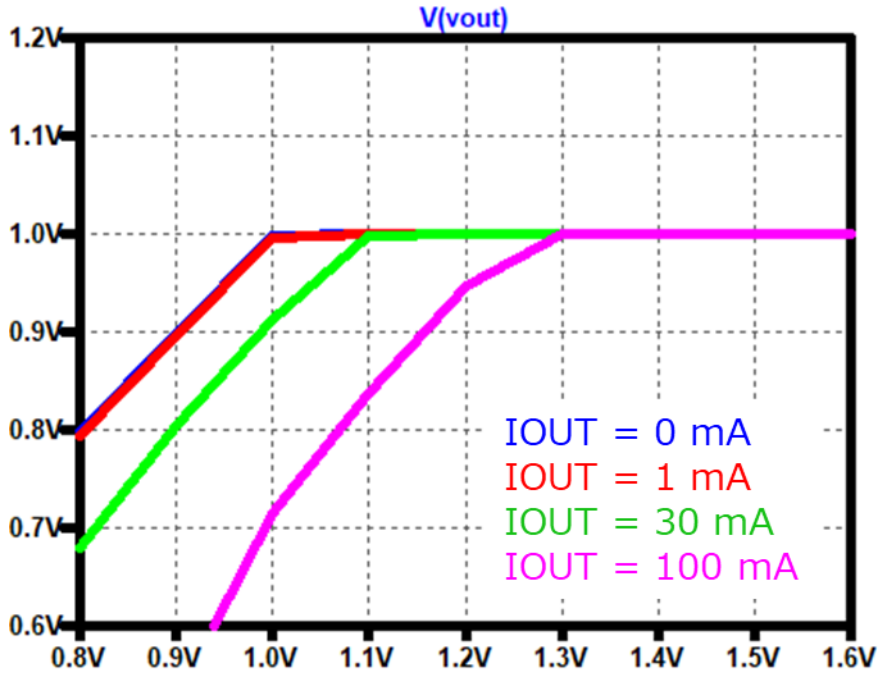
.dc VIN 0 6 0.1

.step param pIout list 1u 1m 30m 100m .lib MDC_XC6219F102PR-G_LT.lib
.param pVout=1.0
```



Simulation results are following.  
 Explanatory notes — : simulated

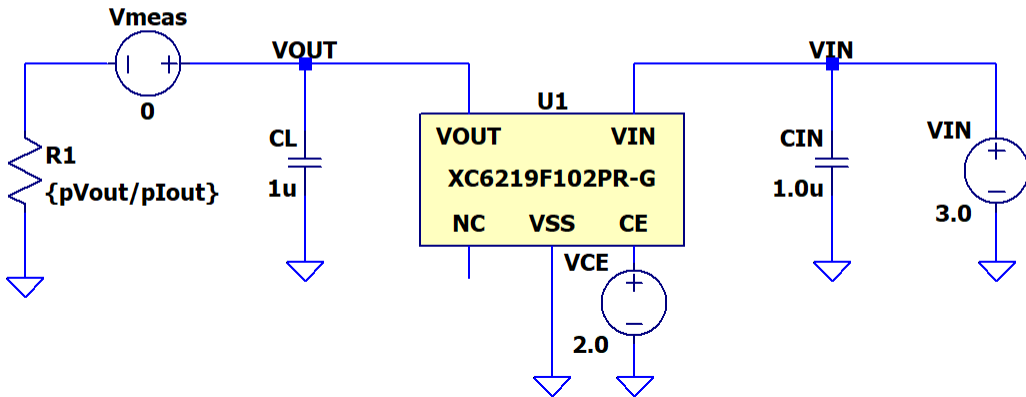
$V_{IN}-V_{OUT}$



Vdif Testbench

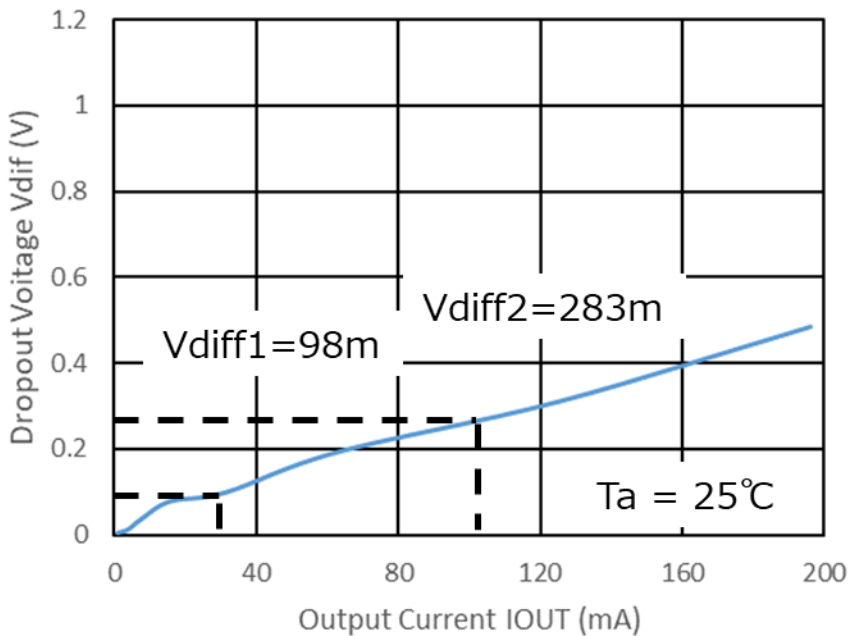
Referred to Data Sheet

```
.option TNOM=25
.temp 25
.dc VIN 3 0 0.1
.step oct param pIout 1m 200m 1
.param pVout=1.0
.meas DC Vdiff FIND V(VIN)-V(VOUT) WHEN V(VOUT)=1.0*0.98
.meas DC Iout FIND I(Vmeas) WHEN V(VOUT)=1.0*0.98
.lib MDC_XC6219F102PR-G_LT.lib
```

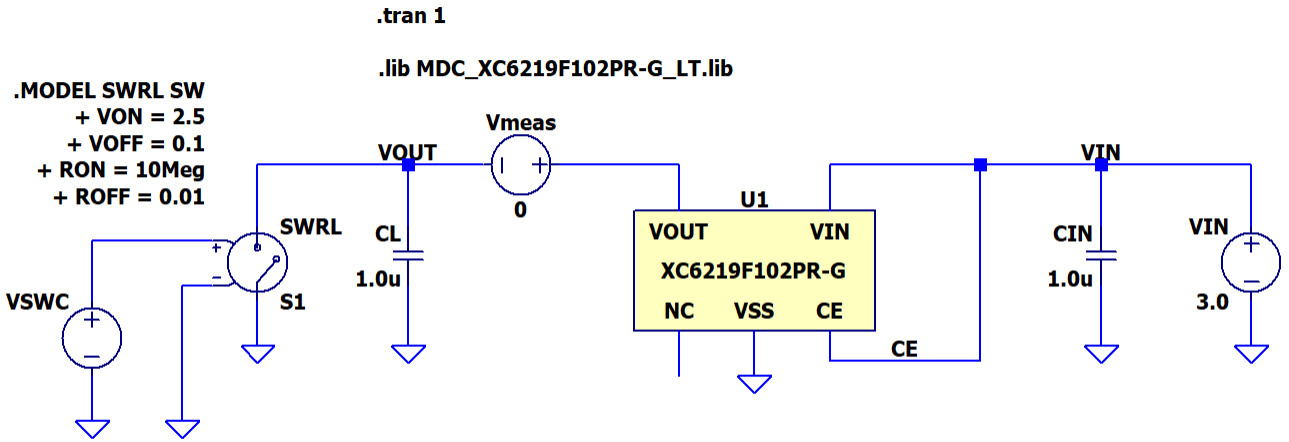


Simulation results are following.  
 Explanatory notes — : simulated

Vdif



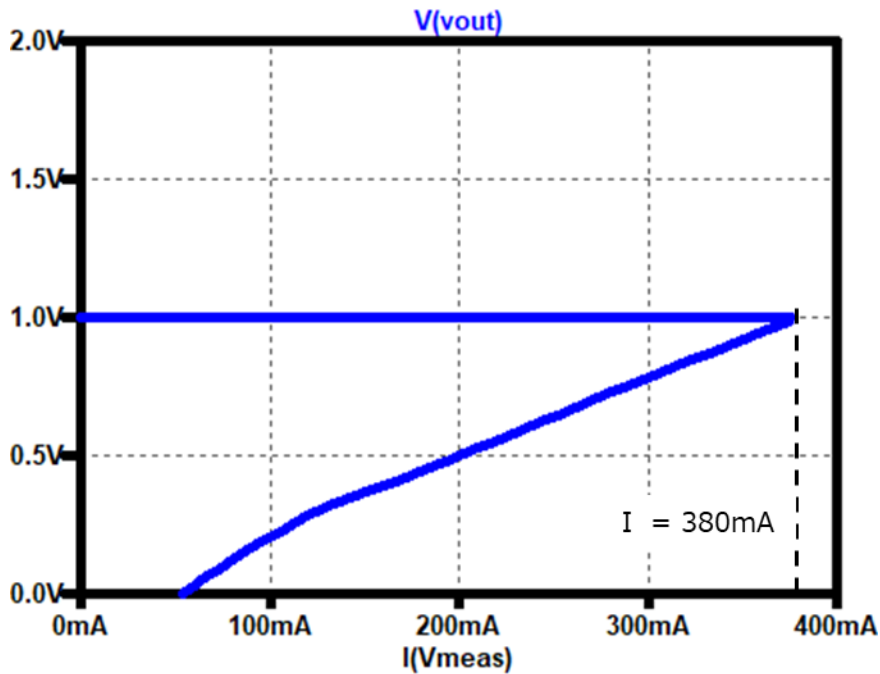
$I_{OUT}$ - $V_{OUT}$  Testbench  
 Referred to Data Sheet



PULSE(5 0 100m 100m 10n 1 200u)

Simulation results are following.  
 Explanatory notes — : simulated

$I_{OUT}$ - $V_{OUT}$



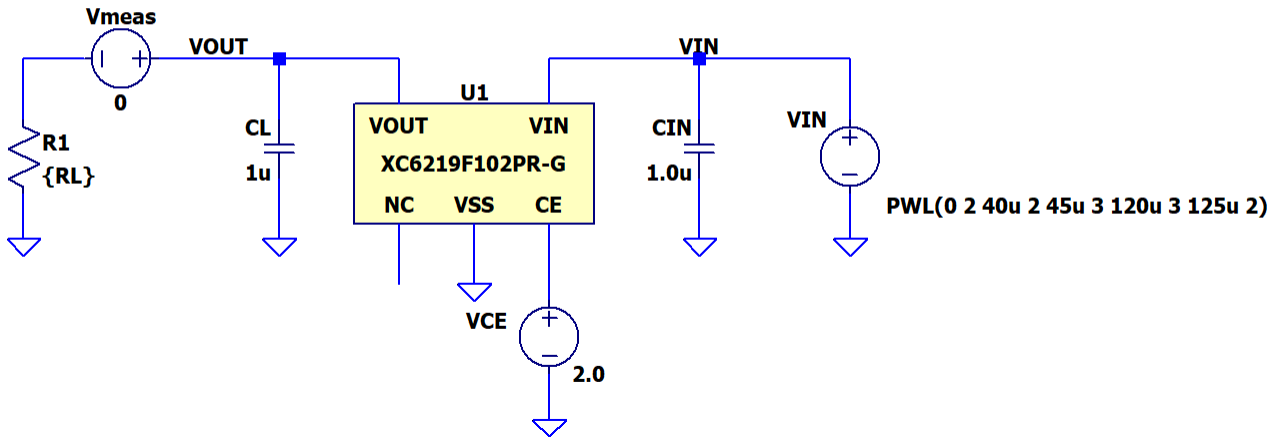
Input Transient Response Testbench

Referred to Data Sheet

```
.option TNOM=25
.temp 25
```

```
.tran 0 160u 0 100n
.step param RL list 1k 100 10
```

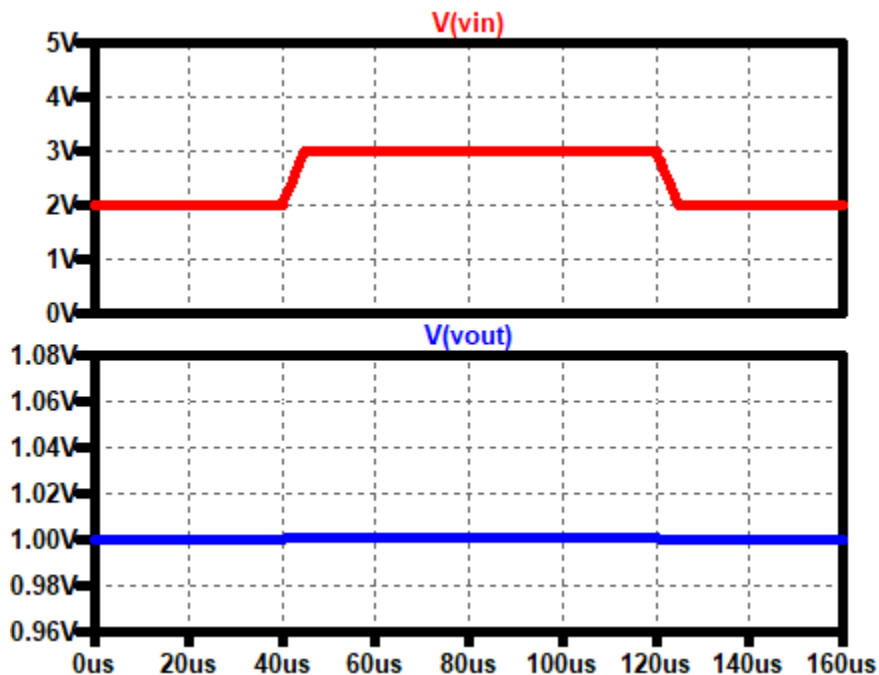
```
.lib MDC_XC6219F102PR-G_LT.lib
```



Simulation results are following.  
 Explanatory notes — : simulated

Input Transient Response

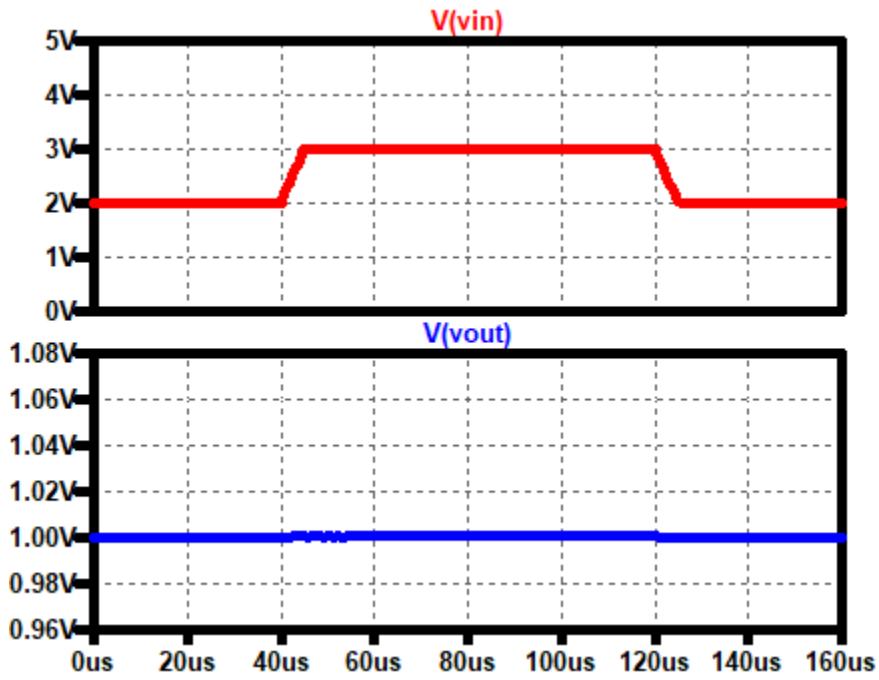
$I_{OUT}=1mA$



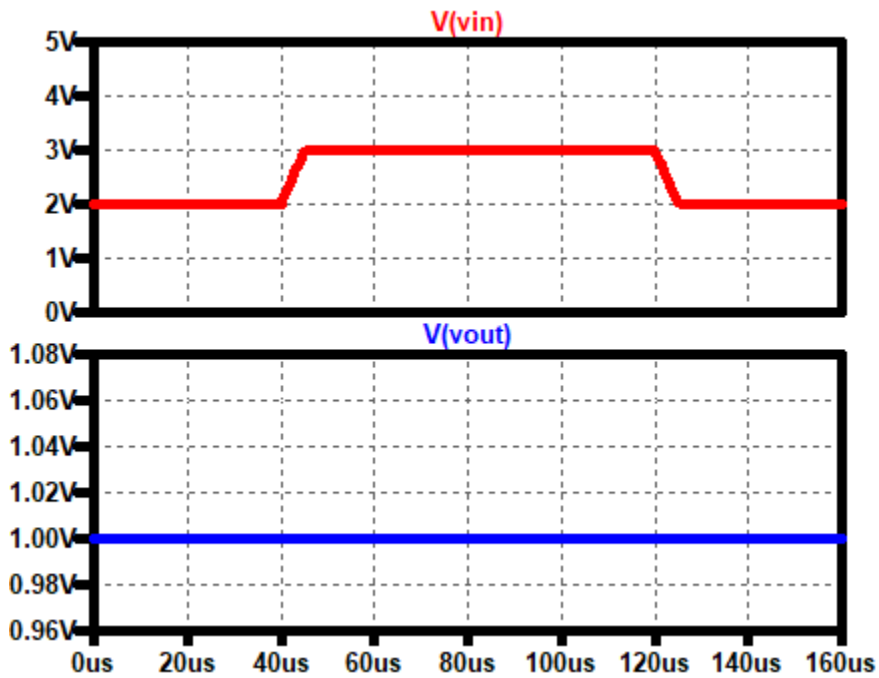
Simulation results are following.  
Explanatory notes — : simulated

### Input Transient Response

$I_{OUT}=10mA$

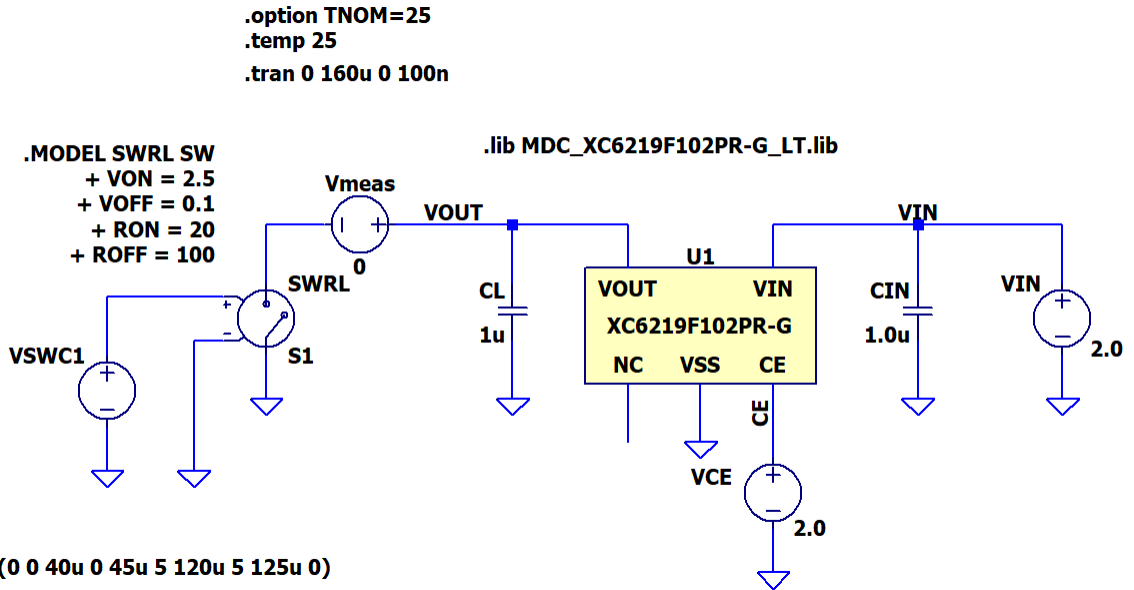


$I_{OUT}=100mA$





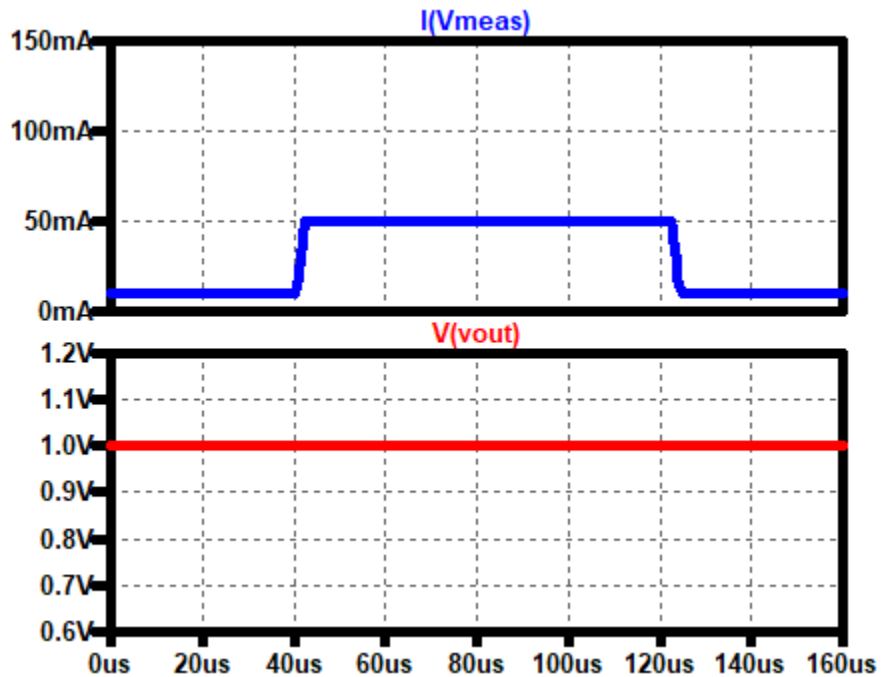
Load Transient Response Testbench  
 Referred to Data Sheet



Simulation results are following.  
 Explanatory notes — : simulated

Load Transient Response

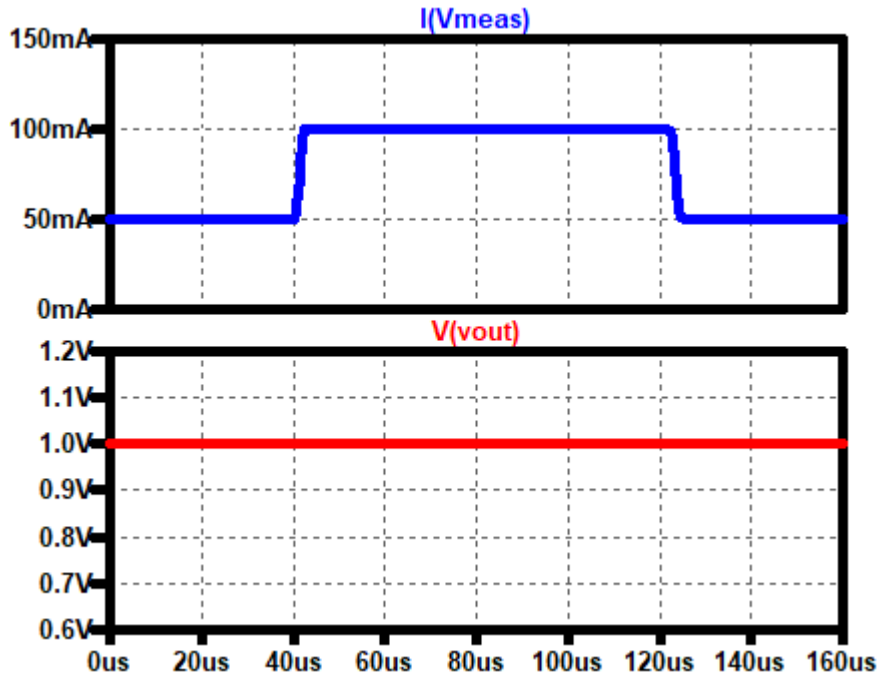
• I<sub>OUT</sub>: 10mA to 50mA



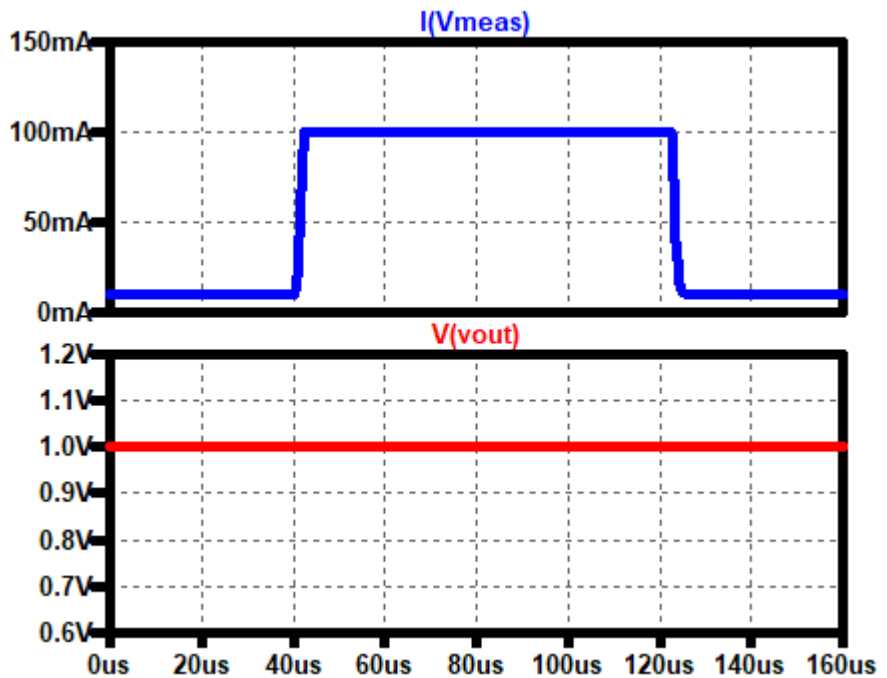
Simulation results are following.  
Explanatory notes — : simulated

Load Transient Response

• I<sub>OUT</sub>:50mA to 100mA



• I<sub>OUT</sub>:10mA to 100mA



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